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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,872	12/29/2003	Juei-Mei Wang		1397

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EXAMINER

NELSON, FREDA ANN

ART UNIT PAPER NUMBER

3639

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/748,872	Applicant(s) WANG, JUEI-MEI	
	Examiner Freda A. Nelson	Art Unit 3639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on December 29, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is in response to a letter for a patent filed December 29, 2003 in which claims 1-24 were presented for examination. Claims 1-24 are pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 12/29/2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner. A copy of PTO-1449 is attached hereto.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 11-18 and 22-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claims 1-18 and 22-24, the invention, as defined by the claims and as best understood merely manipulate an abstract idea or perform a purely mathematical algorithm without any limitation to a practical application in the technological arts. The

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invention is implemented on a computer; therefore, the invention is directed to the technological arts. However, the claimed invention integrates actual product costs in order to calculate actual product costs. The invention does not require physical acts to be performed outside the computer independent of and following the steps to be performed by a programmed computer, where those acts involve the manipulation of tangible physical objects and result in the object having a different physical attribute or structure. See *Diamond v. Diehr*, 450 US at 187, 209 USPQ at 8. The steps of computer calculating value-added costs of a product, calculating material costs, and adding the value-added costs and the material costs of a product to obtain actual costs of the product do not impose independent limitations on the scope of the claim beyond those required by the mathematical operation and abstract limitations because the adding of value-added costs and material costs are not actual measured values of physical phenomena. *In re Galnovatch*, 595 F.2d at 41 n.7, 201 USPQ at 145 n.7; *In re Sarker*, 588 F.2d at 1331, 200 USPQ at 135. The steps of “adding or calculating” have no direct effect on the physical world outside the computer. Thus, the claimed invention merely inputs data into the system and performs a mathematical algorithm without any limitation to a practical application as a result of the algorithm or outcome and is therefore deemed to be non-statutory.

Furthermore, in determining whether the claimed subject matter is statutory under 35 U.S.C. 101, a practical application test should be conducted to determine whether a “useful, concrete and tangible result” is accomplished. See *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1359-60, 50 USPQ2d 1447, 1452-53 (Fed.

Cir. 1999); *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1600 (Fed. Cir. 1998).

An invention, which is eligible or patenting under 35 U.S.C. 101, is in the “useful arts” when it is a machine, manufacture, process or composition of matter, which produces a concrete, tangible, and useful result. The fundamental test for patent eligibility is thus to determine whether the claimed invention produces a “use, concrete and tangible result”. The test for practical application as applied by the examiner involves the determination of the following factors”

(a) “Useful” – The Supreme Court in *Diamond v. Diehr* requires that the examiner look at the claimed invention as a whole and compare any asserted utility with the claimed invention to determine whether the asserted utility is accomplished. Applying utility case law the examiner will note that:

- i. the utility need not be expressly recited in the claims, rather it may be inferred.
- ii. if the utility is not asserted in the written description, then it must be well established.

(b) “Tangible” – Applying *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994), the examiner will determine whether there is simply a mathematical construct claimed, such as a disembodied data structure and method of making it. If so, the claim involves no more than a manipulation of an abstract idea and therefore, is nonstatutory under 35 U.S.C. 101. In *Warmerdam* the abstract idea of a data structure became capable of producing a useful result

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when it was fixed in a tangible medium, which enabled its functionality to be realized.

(c) “Concrete” – Another consideration is whether the invention produces a “concrete” result. Usually, this question arises when a result cannot be assured. An appropriate rejection under 35 U.S.C. 101 should be accompanied by a lack of enablement rejection, because the invention cannot operate as intended without undue experimentation. In other words, the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. In re Swartz, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is “irreproducible” claim should be rejected under section 101). The opposite of “concrete” is unrepeatable or unpredictable. Resolving this question is dependent on the level of skill in the art.

The claims, as currently recited, appear to be directed to nothing more than a series of steps including calculating value-added costs of a product, calculating material costs, and adding the value-added costs and the material costs of a product to obtain actual costs of the product without any useful, concrete and tangible result and are therefore deemed to be non-statutory. While these numbers may be concrete and/or useful, there does not appear to be any tangible result.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 11-17 are provisionally rejected on the ground of nonstatutory double patenting over claim 1 and 9-18 of copending Application No. 10/744,414. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

Claim 1 of US PG Pub. 10/744,414, discloses that database server comprises a database for storing cost variable definition data, operation center definition data,

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manufacturing expenses data, purchase data, inventory data and consumed material data, said cost variable definition data comprising cost variance (hereinafter "variance") related data including a cost variable code field, a cost variable name field, a cost variable unit field and other fields, said operation center definition data comprising data on cost variables and work centers of each of operation centers, said manufacturing expenses data comprising expenses of each of manufacturing expenses accounts, said purchase data comprising purchase date, material number, material name, purchase quantity, purchase unit price, purchase expenses, said inventory data comprising current period inventory data and initial inventory data, said consumed material data comprising product name, product number, current period produced quantity, and all consumed materials' numbers, names and quantities;

and the web server comprises:

a value-added costs integration module for calculating value-added costs of a product, the value-added costs integration module comprising:

a cost group file creation sub-module for defining cost groups, manufacturing expenses accounts and cost variables in each cost group, and for calculating the manufacturing expenses of each cost group based on the manufacturing expenses data and the cost variable definition data;

an operation center variance calculation sub-module for calculating the sum of all the operation centers' variances and each product's variance for each operation center, based on the operation center definition data and the work time data on work orders;

a cost group apportionment sub-module for specifying a ratio of each cost group's manufacturing expenses apportioned to each operation center; and

a value-added costs calculation sub-module for calculating each operation center's total costs, each cost group's manufacturing costs corresponding to the operation center, and the operation center's apportioned variance;

a material costs integration module for calculating material costs of a product, the material costs integration module comprising:

a current period purchase costs calculation sub-module for calculating purchase expenses apportioned to each of units of a material and current period purchase costs of a unit of the material based on purchase data of the material;

a historical purchase costs calculation sub-module for calculating historical purchase costs of a unit of the material based on the inventory data and the current period purchase costs;

a material costs calculation sub-module for calculating costs of each material consumed in a product based on the quantity of the consumed material, historical purchase costs of a unit of the material and the produced quantity of the product, and for calculating the material costs of the product based on the costs of each material consumed in the product; and

an actual costs integration module for calculating actual costs of the product by summing up the value-added costs and the material costs of the product:

and claims 9-18 of US PG Pub. 10/744,414 discloses calculating actual costs of a product, comprising:

defining cost variables, codes and other related data for generating cost variable definition data;

defining work centers in each of operation centers and determining cost variables of each product in order to generate operation center definition data;

obtaining manufacturing expenses information and saving the information as manufacturing expenses data;

defining cost groups, and manufacturing expenses accounts and cost variables in each cost group based on the cost variable definition data and manufacturing expenses definition data, and calculating manufacturing expenses of each cost group;

obtaining work time data on work orders, summing up all the work time on work orders of each work center in each operation center, and calculating an operation center total variance and product variances of each operation center;

defining an apportioned variance to be apportioned to each operation center from the cost group's manufacturing expenses; and

calculating the value-added costs of each product based on the manufacturing expenses of each cost group, the apportioned variance of each operation center, the operation center total variance of each operation center, and a product variance of that product.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other

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copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claims 1 and 11-17 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 9-18 of copending Application No. 10/744,414 .

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10 and 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Shimizu et al. (US PG Pub. 2003/0037014).

As for claims 1-10 and 19-21, Shimizu et al. disclose the database server (paragraph [0103], [0513]); and a web server (paragraph [0103], [0513]).

Simizu et al. do not expressly disclose that the database server comprises a database for storing cost variable definition data, operation center definition data, manufacturing expenses data, purchase data, inventory data and consumed material data, said cost variable definition data comprising cost variance (hereinafter "variance")

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related data including a cost variable code field, a cost variable name field, a cost variable unit field and other fields, said operation center definition data comprising data on cost variables and work centers of each of operation centers, said manufacturing expenses data comprising expenses of each of manufacturing expenses accounts, said purchase data comprising purchase date, material number, material name, purchase quantity, purchase unit price, purchase expenses, said inventory data comprising current period inventory data and initial inventory data, said consumed material data comprising product name, product number, current period produced quantity, and all consumed materials' numbers, names and quantities; and the web server comprises: a value-added costs integration module for calculating value-added costs of a product, the value-added costs integration module comprising:

- a cost group file creation sub-module for defining cost groups, manufacturing expenses accounts and cost variables in each cost group, and for calculating the manufacturing expenses of each cost group based on the manufacturing expenses data and the cost variable definition data;

- an operation center variance calculation sub-module for calculating the sum of all the operation centers' variances and each product's variance for each operation center, based on the operation center definition data and the work time data on work orders;

- a cost group apportionment sub-module for specifying a ratio of each cost group's manufacturing expenses apportioned to each operation center; and

a value-added costs calculation sub-module for calculating each operation center's total costs, each cost group's manufacturing costs corresponding to the operation center, and the operation center's apportioned variance;

a material costs integration module for calculating material costs of a product, the material costs integration module comprising:

a current period purchase costs calculation sub-module for calculating purchase expenses apportioned to each of units of a material and current period purchase costs of a unit of the material based on purchase data of the material;

a historical purchase costs calculation sub-module for calculating historical purchase costs of a unit of the material based on the inventory data and the current period purchase costs;

a material costs calculation sub-module for calculating costs of each material consumed in a product based on the quantity of the consumed material, historical purchase costs of a unit of the material and the produced quantity of the product, and for calculating the material costs of the product based on the costs of each material consumed in the product; and

an actual costs integration module for calculating actual costs of the product by summing up the value-added costs and the material costs of the product, however, however claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, *In re Danly* 263 F.2d 844, 847, 120 USPQ 582, 531 (CCPA 1959). A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed

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apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1657 (bd Pat. App. & Inter. 1987). Thus the structural limitations of claim 1 including a database server and a web server are disclosed in Shimizu et al. Also as described the limitations of the claim do not distinguish the claimed apparatus from the prior art.

Conclusion

4. The examiner has cited prior art of interest, for example

1) Cooney et al. (US PG Pub. 2002/0023060), which disclose an oughta cost purchasing process.

2) Suzuki et al. (US PG Pub. 2001/0012418), which disclose a method and apparatus for estimating product cost.

3) Liebers, Arthur, Ph.D., "An architecture for cost control in manufacturing:

The use of cost information in order-related decisions", 1998, DISSERTATION:

Universiteit Twente (The Netherlands), 2 pgs. (abstract)

4) Sandstrom, Jaana Marita, Ph.D., "Cost-information in engineering design:

Potentials and limitations of activity-based costing", 2001, DISSERTATION:

Lappeenranta Teknillinen Korkeakoulu (Finland), 2 pgs. (abstract).

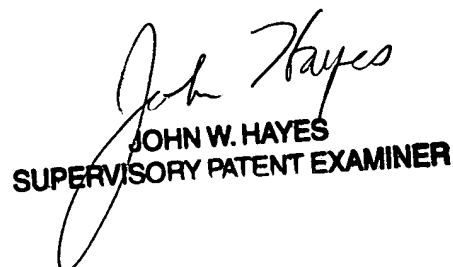
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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freda A. Nelson whose telephone number is (571) 272-7076. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FAN 06/11/2006



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